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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/515,978	02/25/2000	Gerald M. Benson	55250USA1A	9164

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 01/02/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

029

**Office Action Summary**

Application No.

09/515,978

Applicant(s)

BENSON ET AL.

Examiner

Alicia Chevalier

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/15/02.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 and 24-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 15-23 and 38-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**RESPONSE TO AMENDMENT**

***REJECTIONS REPEATED***

1. The 35 U.S.C. §112 rejection of record is repeated for reasons previously of record in paper #6, page 2, paragraph #3.
2. The 35 U.S.C. §102 rejections of record are repeated for reasons previously of record in paper #6, pages 3-4, paragraphs #5-9.
3. The 35 U.S.C. §102/103 rejection of record is repeated for reasons previously of record in paper #6, page 5, paragraphs #10.
4. The 35 U.S.C. §103 rejections of record are repeated for reasons previously of record in paper #6, pages 6-7, paragraphs #12-14.

***NEW REJECTIONS***

5. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

***Claim Rejections - 35 USC § 102***

6. Claims 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihalik (3,741,623), Amemiya et al. (5,429,857), Oshima et al. (5,866,233), Bacon, Jr. et al. (5,614,286), or Nilsen et al. (5,657,162) for reasons previously of record in paper #6, pages 3-4, paragraphs #5-9.

***Potential Allowable Subject Matter***

7. The specification has been noted as containing potentially allowable subject matter on pages 13 and 14. The “compound” substrate is described as comprising a replicated substrate with protrusions (pieces) of the machined substrate embedded in the replicated substrate. Therefore, each cube corner cavity (element) comprises a compound face made up of a portion substantially formed or replicated in the replicated substrate and a portion machined in the machined substrate. Essentially, the Examiner finds that the adding the subject matter relating to the fact that only portions of the machined substrate are left embedded in the replicated substrate to create a surface retroreflective cube corner elements to either claim 16 and/or claim 20 to be potentially allowable. The concept is best shown in figure 9.

Applicant’s representative is invited to schedule an interview with the examiner of record to discuss possible claim amendments.

***ANSWERS TO APPLICANT’S ARGUMENTS***

8. Applicant’s arguments filed in paper #8 regarding the 35 U.S.C. §112 rejection of record have been carefully considered but are deemed unpersuasive.

Applicant argues that claim 1 clearly states that at least one of the plurality of the faces are “located on” the compound substrate. Claim 1 states that a geometric structure having a plurality of faces disposed on a compound substrate. The compound substrate comprises a machined substrate and a substantially replicated substrate. As previously pointed out the claim does not disclose the position of the plurality of faces, e.g. on an external exposed surface of the structure or at the internal interfaces of the two substrate surfaces. Therefore, the examiner

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disagrees with Applicant that the faces cannot be located at an interface between the two substrates, because the claim does not specify the location of the faces on the compound substrate. For that matter the claim also does not clearly disclose the relationship between the replicated and machined substrate.

9. Applicant's arguments filed in paper #8 regarding the 35 U.S.C. §102 rejection as anticipated by Mihalik (3,741,623) of record have been carefully considered but are deemed unpersuasive.

Applicant argues that Mihalik fails to disclose the use of a single substrate having two portions, i.e., the compound substrate as claimed by Applicants. The limitations on which Applicant relies (i.e., "single substrate") are not stated in the claims. Claim 1 states that a geometric structure having a plurality of faces disposed on a compound substrate and the compound substrate comprises a machined substrate and a substantially replicated substrate. The claim specifically states that the compound substrate is at least two substrates. As point out above the claim never clearly discloses the relationship between the replicated and machined substrate, nor does the claim describe the two substrates as merely portions of a larger whole.

Applicant further argues that Mihalik does not disclose the compound faces of claims 3 and 4. The claim 3 only requires that the some of the faces of the compound substrate are on the machined substrate and some of them are located on the replicated substrate. As stated above, the relationship of between the machined substrate and the replicated substrate is never clearly stated. The fact remained that both substrates in Mihalik comprise faces which are "substantially aligned" (claim 4), which is all that is required by the claim. Applicant's further arguments

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regarding what Mihalik "fails" to disclose are unpersuasive because the relationship between the machined substrate and the replicated substrate is not clearly stated in claim 1.

10. Applicant's arguments filed in paper #8 regarding the 35 U.S.C. §102 rejection as anticipated by Amemiya (5,429,857) of record have been carefully considered but are deemed unpersuasive.

Applicant argues that like Mihalik Amemiya fails to describe the claimed compound substrate. Applicant's arguments regarding the claimed "compound substrate" have already been addressed above.

Applicant further argues that Amemiya fails to teach the discontinuous machined substrate covering only a portion of the structured surface and that the machined substrate disposed in discrete pieces in the structured surface. Applicant has failed to specifically point out how the language of the claims patentably distinguishes them from the references. Furthermore, as pointed out in the last office action Amemiya does teach these limitations. Amemiya discloses a decorative sheet comprising bright set-sold print layer (substrate with faces) with protrusions and recessed discontinuous pattern print layer (discontinuous substrate with faces) with protrusions (figure 7 and col. 2, lines 62-68).

11. Applicant's arguments filed in paper #8 regarding the 35 U.S.C. §102 rejection as anticipated by Oshima (5,866,233), Bacon (5,614,286), and Nilsen (5,657,162), the 35 U.S.C. §102/103 rejection and the 35 U.S.C. §103 rejections of record have been carefully considered but are deemed unpersuasive.

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Applicant argues that these rejections fail to describe the claimed compound substrate.

Applicant's arguments regarding the claimed "compound substrate" have already been addressed above.

**Conclusion**

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

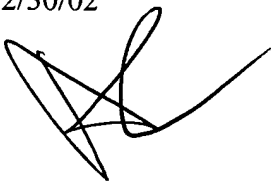
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays

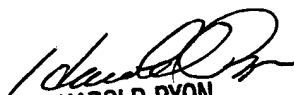
If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Harold Pyon can be reached by dialing (703) 308-4251. The fax phone number for the organization official non-final papers is (703) 872-9310. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.

ac

12/30/02



  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

12/30/02